

Food Safety and Government Relations

Assuring Quality Care for Animals

Food Animal Quality Assurance

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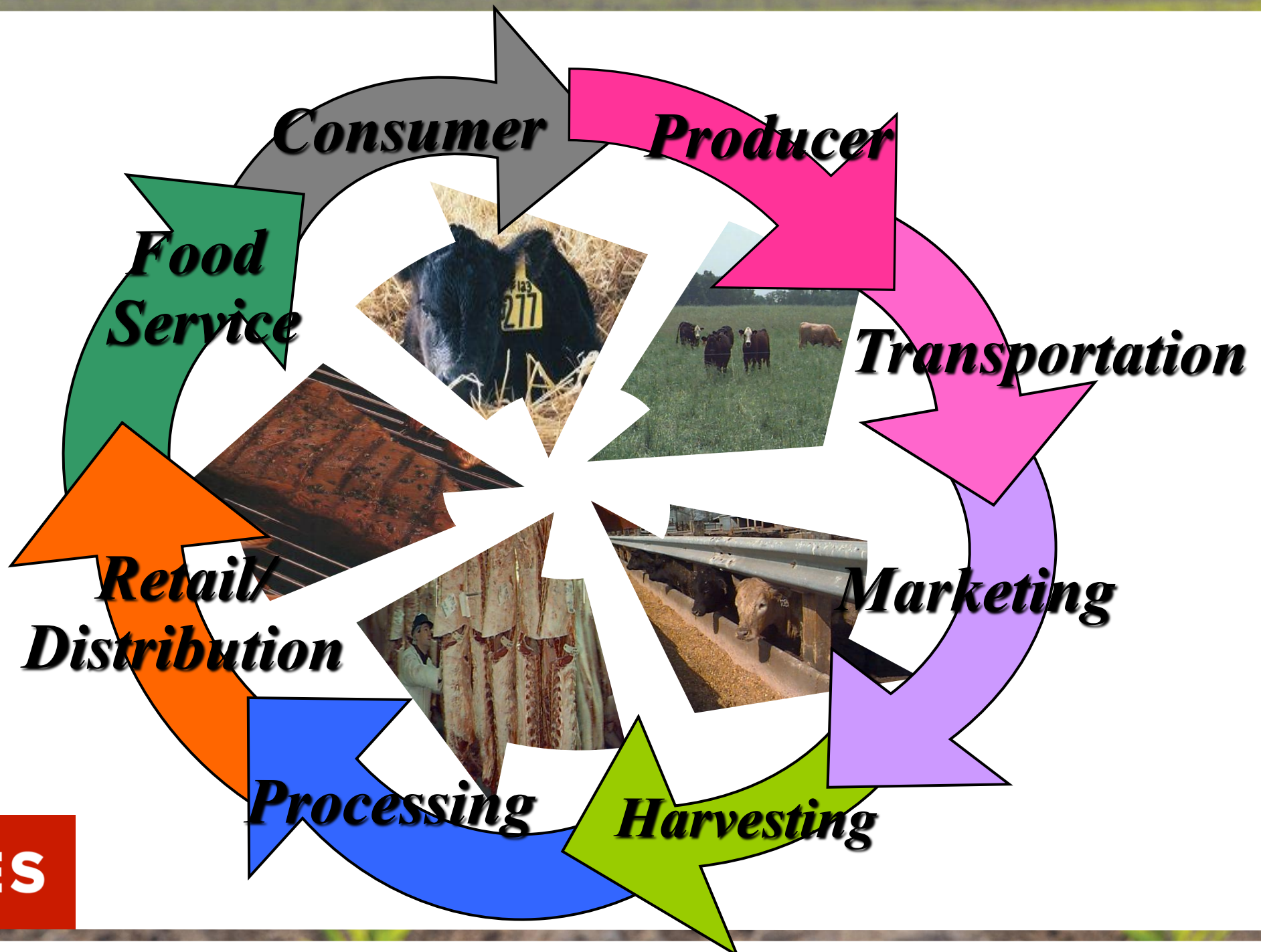


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Who is Responsible for Food Safety?

- All segments of the production chain
- At the live animal level:
 - Food animal producers including:
 - Youth food animal project members
 - Parents/guardians/family members of youth



Quality Assurance

- Assurance is a pledge or promise
- Quality defined 2 ways -
 - A food product preferred by consumers
 - A safe, wholesome food product



Quality Assurance

- Achieve a safe, quality product by understanding:
 - Animal handling (*GPP 9*)
 - Animal welfare (*Ethics/Animal Welfare*)
 - Animal health (*GPPs 2, 3, 4*)
 - Nutrition (*GPP 5*)
 - Impacts of production/show practices on consumer perception of meat quality and safety (*ALL GPPs*)



Why is Food Safety an Issue with Youth Food Animal Exhibitors?

- Youth food animal exhibitors are:
 - Food animal producers
 - Under the same regulations as adult food animal producers

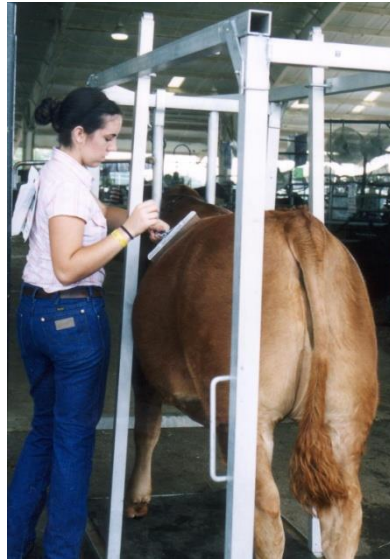


Perception is Reality to the Public



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Remember: You are representing your organization, club, county, the industry, your family, and yourself!



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Food Animal Tampering

- Potential consequences for youth:
 - Prosecuted
 - Banned from fair for a period of time
 - Stripped of award monies
 - Fined

How Can Youth Exhibitors Ensure Food Safety?

- Supply the packer/processor with animals and/or food products free from drug and chemical residues and physical hazards
- Youth exhibitors must also be aware of withdrawal times



Establish and Implement an Efficient and Effective Health Management Plan

Good Production Practice #2

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Health Management Plan



- Herd/Flock health is a key to food safety!
 - Controls disease
 - Reduces risk of drug residue
 - Improves health and welfare
 - **Increases production and efficiency**
 - **Costs less money to prevent than to treat**
 - **Establishes vaccination plans, biosecurity protocols & emergency preparedness**

Health Management Plan Components

- Should include these key components
 - Veterinarian/Client/Patient Relationship (VCPR)
 - Development of a herd/flock health plan
 - Development of a biosecurity plan
 - Foreign animal disease and emergency preparedness procedures



Veterinarian/Client/Patient Relationship

Important to establish as a means to:

- Manage the health of project animal(s)
- Prevent drug residues



Required for prescription drugs, extra-label drug use and Veterinarian Feed Directives (VFD)

Veterinarian/Client/Patient Relationship

What is needed for this relationship?

The veterinarian has:

- Seen and has knowledge of the animal
- Discussed the health plan or any treatments with the owner



Herd/Flock Health Plan

Work with your veterinarian to develop:

- Vaccination protocols
- Parasite control protocols
- A schedule of regular health checks
 - Review vaccination & treatment records
 - Discuss health concerns
- A calendar to execute the health plan



Vaccinations

Are preventative steps to ensure health of the animal

- Very important in exhibition animals
 - Vaccination lowers risk of disease
 - Exhibitions expose animals to several diseases due to intermingling of animals from many sources
- Ask for animal health records when purchasing animals



Develop Biosecurity Plan



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Biosecurity Plan

- **Part of an effective health plan**
 - Uses management practices to reduce risk of infectious diseases
 - Maximize animal health and performance
 - Minimize food borne contamination



Disease Transmission from Farm to Farm

- Rodents, wildlife, birds, pets
 - Between animals
 - **Same species**
 - **Different species**
- Vehicles, Equipment
- New animals
- Humans
- Clothes, shoes
- Air



Biosecurity can be either:

- **External**
 - Keeping diseases out of a herd/flock
- **Internal**
 - Keeping diseases already in one or more segments of the herd/flock from spreading to other segments

External Biosecurity

- **Wildlife/rodent/pest/pet control**
 - Deny entrance to buildings/feed rooms
 - Store feed in rodent proof containers
 - Clean up spilled feed
 - Use methods to control rodents



External Biosecurity



- **New Animals**

- Clean and disinfect pen/stall/cage before bringing in new animals
- Should be isolated for at least 10 days
 - **Consult veterinarian for each situation**
 - **Isolate animal(s) after an exhibition**
- Same health status as current animals on farm
 - **Vaccination**

External Biosecurity

- **Personal**

- Change clothes/boots/shoes after visiting other farms, feed store, livestock shows
- Clean & disinfect scales, show equipment, tools that have been used off the farm
- Clean & disinfect truck/trailer after each use

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Internal Biosecurity

- Work with your veterinarian when you have a sick animal
- Have separate facilities for sick animals
- Have clothing/shoes/boots that are only worn to the barn
- Keep feed and feed bunks free of manure
- Clean waterers on a regular basis



Emergency Preparedness

Written Emergency Backup Plan

- Natural Disaster
- Fire
- Weather
- Power outage
- Phone #'s: Yours, Veterinarian, Fire and Police



Properly Store and Administer Animal Health Products

Good Production Practice #4

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Who is responsible for proper drug administration?

**Exhibitors
AND
Parents/Guardians
AND
Producers**

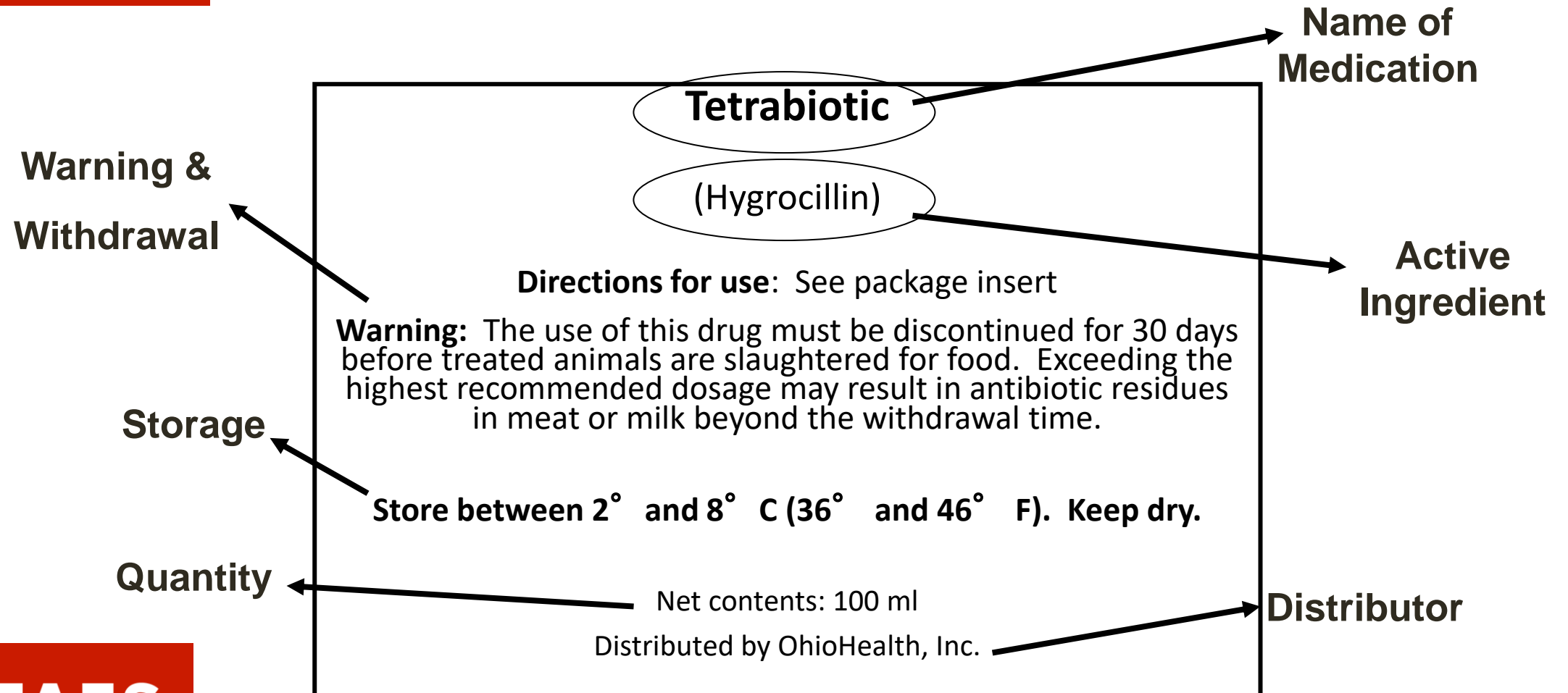


Responsible Drug Use

- Make sound decisions
 - Read, understand and follow label directions
 - Keep and know medication records and animal ID treatment status of ALL animals
 - Identify all treated animals (refer to GPP #6)
 - Keeping records
 - **Removes doubt when marketing previously treated animals**
 - **Helps to assure proper withdrawal times for an animal**

Medication Label

(label located on the outside of the container)



Medication
Label
Insert

Tetrabiotic (hygrocillin in aqueous suspension)
For use in Beef Cattle, Lactating and Non-lactating Dairy Cattle, Swine and Sheep Read entire insert before using this product. For Subcutaneous Use Only
Active Ingredients: Tetrabiotic is an effective antimicrobial preparation containing hygrocillin hydrochloride. Each ml contains 20,000 units of hygrocillin hydrochloride in an aqueous base.
Indications: Cattle: Foot rot, mastitis, pneumonia, wound infections. Swine: Erysipelas, pneumonia, wound infections. Sheep: Foot rot, pneumonia, mastitis, wound infections. Also other infections in these species caused by or associated with hygrocillin susceptible organisms.
Recommended Daily Dosage The usual dose is 2 ml per 100 lbs of body weight given once daily. Maximum dose is 15 ml per day. Continue treatment of 1-2 days after symptoms disappear, for a maximum of 4 days.
Caution: 1. Hygrocillin should only be injected subcutaneously in the neck area consistent with BQA and other species quality assurance guidelines. Do not inject intramuscularly, as extensive tissue damage may occur. 2. If improvement does not occur within 48 hrs, the diagnosis should be reconsidered and appropriate treatment begun. 3. Hygrocillin should be stored between 2° and 8° C. Warm to room temperature and shake well before using. Keep refrigerated when not in use.
Warning: Milk that has been taken from animal during treatment and for 48 hours after the last treatment must not be used for food. Use of this drug must be discontinued for 30 days before treated animals are slaughtered.

CALCULATING MEDICATION DOSAGE

weight x ml/lb =
dosage

Recommended Daily Dosage

The usual dose is 2 ml per 100 lbs of body weight given once daily.

Maximum dose is 15 ml per day.

Continue treatment of 1-2 days after symptoms disappear, for a maximum of 4 days.

CALCULATING MEDICATION DOSAGE

$2/100 = .02$ per
pound

$50\# \times .02 = 1 \text{ ml}$

Recommended Daily Dosage

The usual dose is 2 ml per 100 lbs of body weight given once daily.

Maximum dose is 15 ml per day.

Continue treatment of 1-2 days after symptoms disappear, for a maximum of 4 days.

CALCULATING MEDICATION DOSAGE

It is April 18 and your steer #142 is lame in the left front leg. Your veterinarian says it needs medication to clear up the foot rot. The medication label says to give 1 ml/100 lbs. once a day for 3 days. Your steer weighs 1,000 lbs. How much medication should you give your steer for one day?

1. 3 ml
2. 10 ml
3. 1000 ml

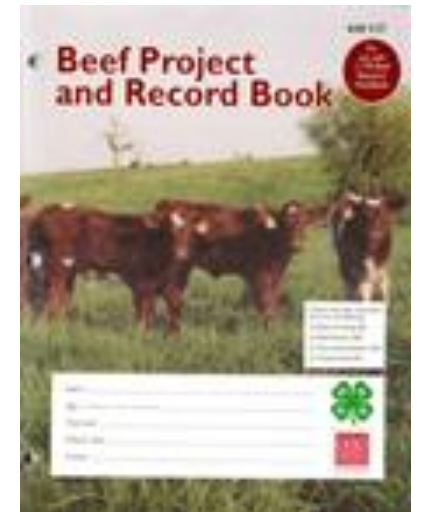
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2. 10 ml
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Animal Health Products – Best Practices

- Keep box, medication, and all labels together during storage
- Keep medication labels for your records
 - Attach in the back of record books or keep with treatment records
- Keep records for at least one year



Storage

- Health products have specific storage requirements
- Proper storage
 - Reduces contamination
 - Reduces risk to health for animals and people
 - Ensures product will work



Storage DO's

- Determine drug storage requirements
- Most require cool, dark, dry storage
 - Some require refrigeration
- All drugs should be stored in a clean, organized place
 - Avoid contamination



Storage DON'Ts

- Do NOT store partially used drugs or vaccines unless allowable by label
- Drugs for lactating and non-lactating animals should NOT be stored together
- DO NOT store medications in syringes
 - Unless provided that way by veterinarian

Expiration Date & Shelf Life

- Purchase amount needed for one day
- Never use an outdated drug or vaccine
- Some drugs must be used the same day once opened or mixed
 - Otherwise may lose effectiveness
 - For example: Modified Live Vaccines



Cross-Contamination

- Use transfer needles to reconstitute vaccines
- NEVER mix vaccines or other animal health products, unless directed...
 - Use only APPROVED combinations of vaccines or health products
- DO NOT store medications in feed room
 - Could get mixed with a feed ration

Administering Medications

- Exhibitors, parents, and producers are all responsible and should work together as a team for proper administration of medications to animals
- Proper administration of medications and record keeping result in drug residue elimination

Administering Medications

Orally

- Through the mouth
- By drenching guns, balling guns or oral dose syringes
- In feed and water



Administering Medications

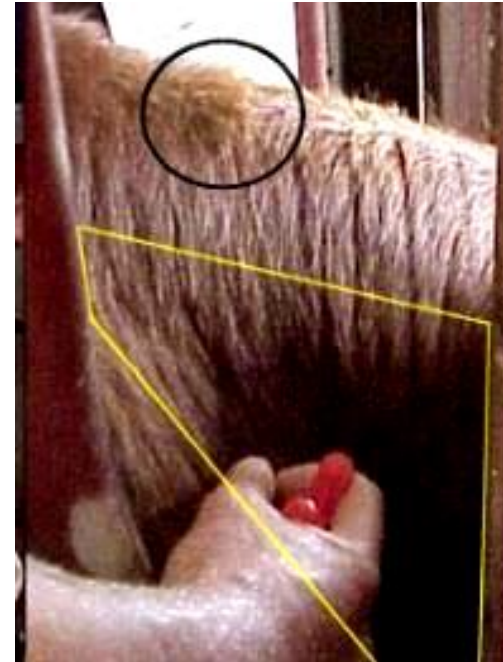
- **Topical**

- Directly on the skin or on the mucous membranes of the eyes, ears, or nasal passages
- Check if product is approved for food animals
- Pesticides typically have this type of application

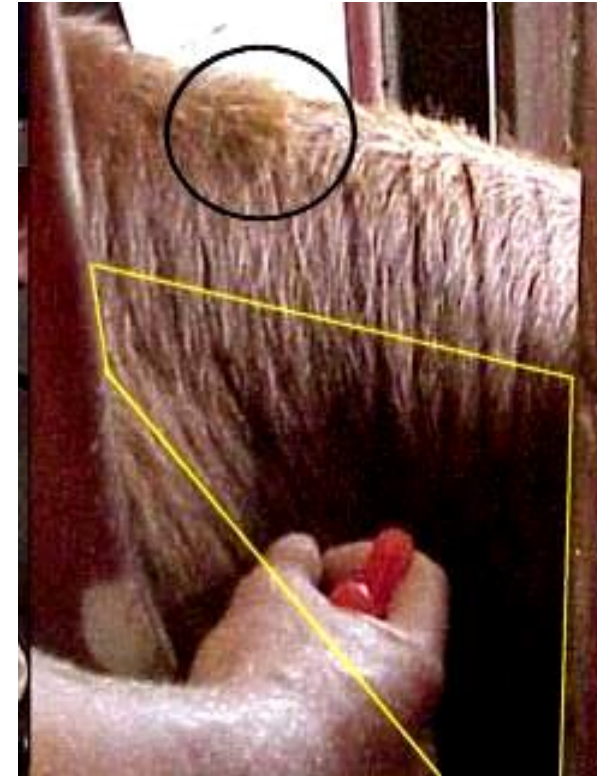
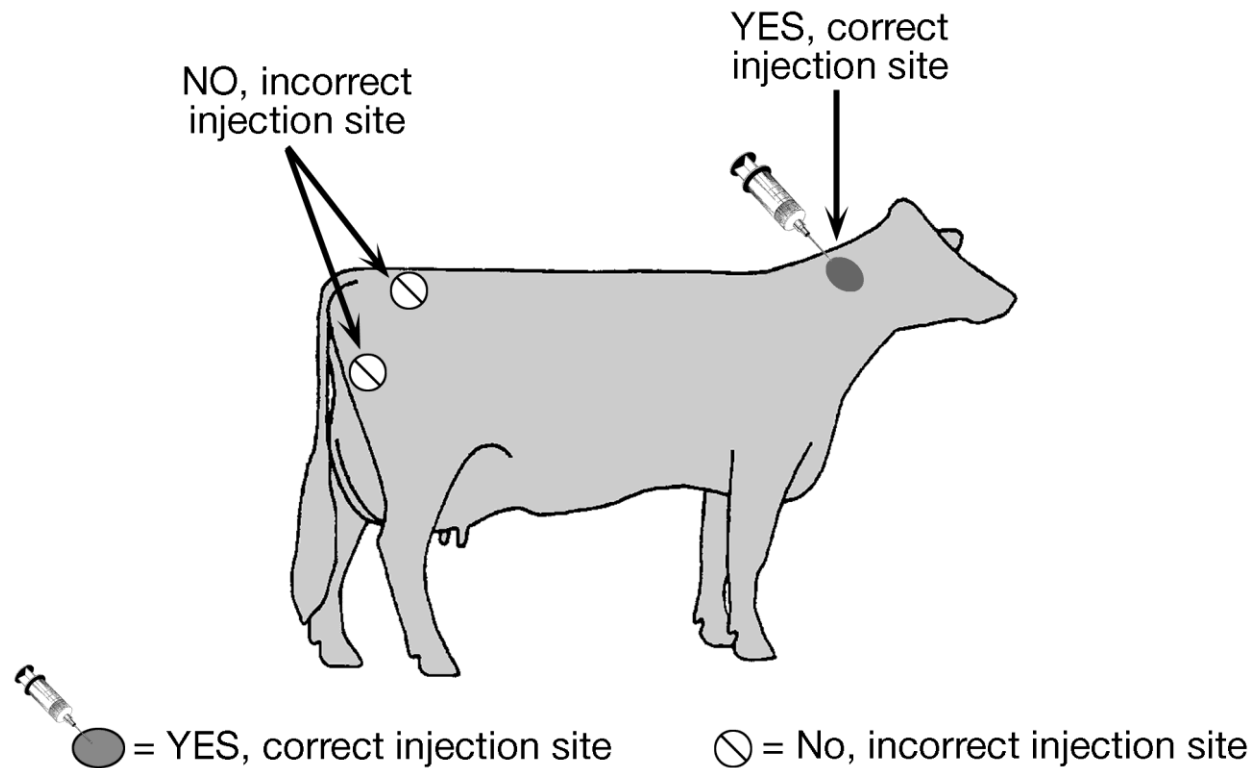


Administering Medications

- **Injections**
 - Proper restraint
 - Risks include
 - **Broken needles**
 - **Injections site reactions**
 - Select proper site for injection



Cattle - Proper Injection Site

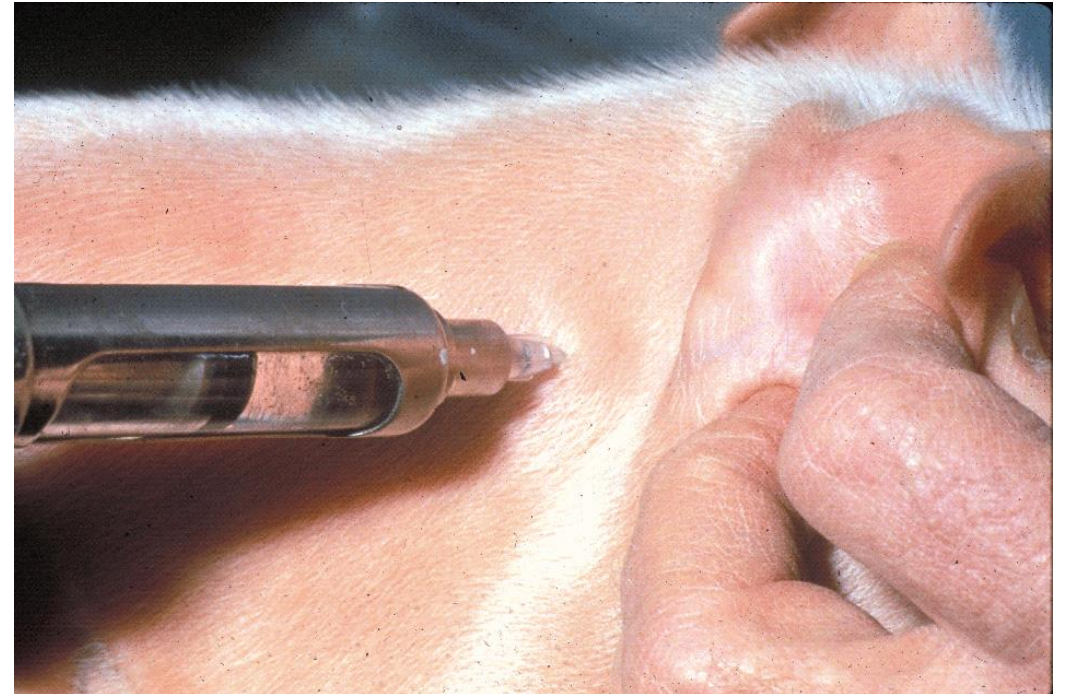
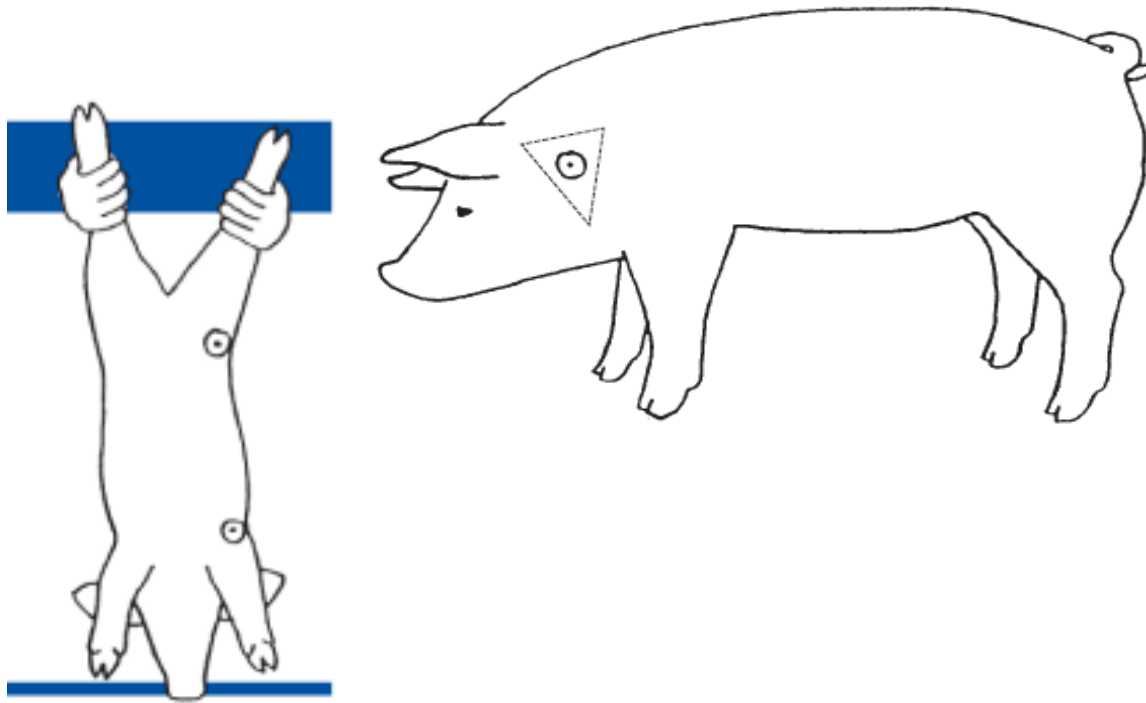


Sheep/Goats – Proper Injection Sites



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Swine – Proper Injection Sites



What type of injection allows for the lowest risk of damage to meat?

Intramuscular (IM) or

Subcutaneous (SQ)?

What type of injection allows for the lowest risk of damage to meat?

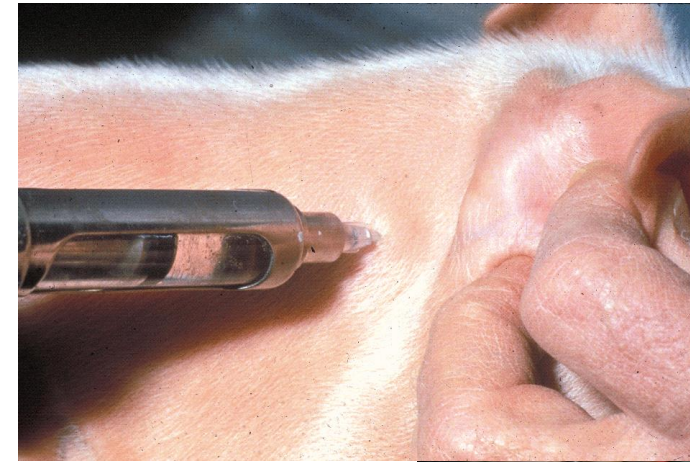
Answer -

Subcutaneous (SQ)

Administering Medications

- **Types of Injections**

- Intramuscular (IM)
 - **In the muscle**
- Subcutaneous (SQ)
 - **Under the skin**
 - **Implants are a subcutaneous injection given in the ear of cattle**
- Work with your veterinarian



Administering Medications

- **Types of Injections**
 - Intraperitoneal (IP) – in the abdominal cavity
 - **Seek veterinary assistance**
 - **Serious injury including death may occur**
 - Intravenous (IV) – in the vein
 - **Seek veterinary assistance**
 - **Serious injury including death may occur**

Administering Medications

- Other types
 - Intranasal (IN) – in the nasal passages
 - Intramammary Infusion – in the udder through the teat canal

These injections do not use a needle!



Needle Use Guidelines

- Evaluate the quality of the needle by assessing the hub, shaft and bevel
 - The needle should be free of chips, cracks or burrs
 - Make sure the needle is not bent



Needle Use Guidelines



- Change needles frequently
 - Preferably after each animal
- Retrieve dropped needles and dispose immediately
- Change bent needles
 - Never straighten
- Ensure proper disposal of sharps
 - Needles, surgical knife blades, and syringes



Why is proper injection site important?

- Consumer **SAFETY** is compromised
- Consumers want **QUALITY** meat products
- **MONEY** lost by industry



Follow Proper Feed Product Protocols

Good Production Practice #5

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Medicated Feeds and Current Good Manufacturing Practices (cGMPs)

- cGMPs are designed to
 - Prevent feed contamination
 - Provide reasonable assurance of proper medicated feed manufacturing
 - cGMPs ensure safe, wholesome, meat for human consumption

Medicated Feeds

- Can only feed at level approved by FDA
 - No extra-label use of medicated feeds
 - This is ILLEGAL!
- Feed at level as indicated on the feed label instructions
 - Consult veterinarian or nutritionist with questions

Storage of Medicated Feeds

- Store at proper moisture and temperature
- Keep medicated feeds separate from non-medicated feeds



Cross-Contamination

- To pollute or taint by contact
- What can you do to reduce the risk of cross-contamination?
 - Use different feed scoops
 - **Red for medicated**
 - **Green or another color for non-medicated**
 - Properly clean feed mixing equipment
 - Store medicated feed and other feeds separately

The image features a solid red background. In the center, the text "Knowledge Check!" is written in a white, bold, italicized sans-serif font. A thin white horizontal line is positioned directly beneath the word "Knowledge". The text is flanked by clusters of gold, 3D-style stars of various sizes. On the left, there are four stars of different sizes. On the right, there are five stars, including a large one at the top and another large one at the bottom. The overall design is clean and celebratory.

Knowledge Check!

True or False

It is important to keep medicated and non-medicated feeds separate.

Answer: TRUE

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Knowledge Check!

Keeping medicated and non-medicated feeds separate helps keep what from happening?

Answer: Cross-Contamination, Drug Residues



Guidelines for Good Feeding Practices



Good Housekeeping

- Facilities and Equipment should be kept
 - Clean
 - Maintained



Feed Storage, Handling

- Keep SEPARATE
 - Medicated and non-medicated feed
 - Animal health products
 - Chemicals
- Control rodents, birds, wildlife, pets
- Protect from moisture



Clean Equipment

- Clean mixing equipment between each batch if you mix your own feed
- Use different feed scoops or other equipment for medicated feed
- Clean feeders following use of medicated feeds



READ THE LABEL

- Age and type of animal feeding
- Nutrient needs
- Active drug ingredient and withdrawal time
- Know how to calculate proper amounts!!
 - Consult nutritionist, veterinarian, or Extension professional

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50 Lbs.
Net Wt. 22.7 Kg.



**BUCKEYE 14%
GOLD'N GROWER**

GUARANTEED ANALYSIS

Crude Protein, Minimum	14.00%
Crude Fat, Minimum	4.00%
Crude Fiber, Maximum	12.00%
Acid Detergent Fiber, Maximum	17.00%
Calcium (Ca), Minimum	0.40 % Max. 0.90%
Phosphorus (P), Minimum	0.40%
Salt (NaCl), Minimum	0.20% Maximum 0.70%
Potassium (K), Minimum	0.80%
Magnesium (Mg), Minimum	0.20%
Selenium (Se), Minimum	0.30 ppm
Vitamin A, Minimum	5,000 IU/lb.
Vitamin D-3, Minimum	1000 IU/lb.

INGREDIENTS

Heat Processed Corn, Heat Processed Oats, Heat Processed Barley, Cottonseed Hulls, Cracked Corn, Soybean Meal, Whole Cottonseed, Wheat Middlings, Cane Molasses, Soybean Oil, Calcium Carbonate, Calcium Phosphate, Salt, Potassium Chloride, Potassium Sulfate, Magnesium Oxide, Magnesium Sulfate, Manganese Oxide, Ferrous Carbonate, Copper Sulfate, Zinc Oxide, Ethylenediamine Dihydrochloride, Cobalt Carbonate, Sodium Selenate, Vitamin A Supplement, Vitamin D-3 Supplement, Vitamin E Supplement, 12/97

Feeding Directions: Feed Buckeye 14% Gold'N Grower to growing show calves. Gold'N Grower is recommended to be fed at 2.25% of body weight. Due to the levels of excellent fiber in the pellet, only about 4 to 6 pounds of hay per day needs to be fed. Feed Gold'N Grower up to about 800 lbs. of body weight, or whenever you want the calf to start the conditioning/finishing phase and when less structural growth is desired. At this time it is recommended that the grower ration be switched to Buckeye 12% Gold'N Conditioner/Finisher. Free Choice Buckeye T.M. Salt with Selenium and Buckeye 20:10 Mineral. Maintain a clean fresh supply of water.

BUCKEYE FEED MILLS
DALTON, OHIO 44618

Recordkeeping

- Record use of medicated feeds
- Keep complete records of feed formulation
- Swine, sheep, goats, poultry
 - Keep records 1 year
- Beef and dairy
 - Keep records 2 years



Veterinary Feed Directive

- Category for new antimicrobial drugs used in the feed/water to treat disease
 - Must have a VFD to feed the product or add medication to water
 - Extra-label use NOT permitted

Veterinary Feed Directive

A VFD is a written statement issued by a licensed veterinarian that authorizes the use of an approved VFD drug or combination VFD drug in or on an animal feed.

This written statement authorizes the client (owner of the animal) to obtain and use animal feed bearing or containing a VFD drug or combination VFD drug to treat the client's animals only in accordance with the conditions for use approved by the FDA (Food and Drug Administration).

What is a VFD Drug?

Antibiotic drugs required to have a VFD order to be added on or in the feed are those deemed by the FDA to be medically important for human medicine.

The FDA is concerned that improper or overuse of these antibiotics may contribute to antibiotic-resistant bacteria making it harder to treat human illnesses.

- Examples include Aureomycin®, Lincomix®, Neo-Terramycin®, penicillin, and tylosin.

Establish a VCPR to get a VFD

- Establish a VCPR in order to obtain a VFD
- To write a VFD and otherwise treat your animals, the veterinarian must personally see your animal(s), become acquainted with their care, and have done so recently enough that he/she can make medical judgements.

What are my responsibilities:

1. Only feed animal feed bearing or containing an approved VFD drug or a combination VFD drug to animals based on a VFD issued by a licensed veterinarian.
2. Do not feed a VFD feed or combination VFD feed to animals after the expiration date on the VFD.
3. Provide a copy of the VFD order to the feed distributor if the issuing veterinarian gives you the distributor's copy of the VFD. The veterinarian may send the VFD order directly to your feed distributor.
4. Keep a copy of the VFD order for a minimum of 2 years.
5. Provide a VFD order for inspection and copying by the FDA upon request.

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Knowledge Check!

True or False

Extra-label use of medicated feeds that require a VFD is fine as long as a veterinarian approves it.

Answer: FALSE

Utilize Tools for Continuous Improvement

Good Production Practice #10

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Utilize Tools for Continuous Improvement

- Conduct site assessments on a regular basis to benchmark animal care practices and measure well-being
- Three core areas to evaluate when measuring and benchmarking:
 - Records
 - Facilities
 - Animal observations



Conducting Animal Well-Being Assessments

- Conduct site assessments on a regular basis to benchmark animal care practices and measure the animals' well-being
 - Be aware of animals' well-being every day
 - This will help detect changes in environment that could negatively affect your animals

Well-Being Assessments

- Check for the following items during well-being assessments:
 - Water
 - Feed
 - Facilities, barns, pens, lots, cages
 - Aisle-ways, loading chutes
 - Animal observation



Water

- Clean, cool water available at least twice daily and in a quantity sufficient to fully satisfy the animals, if not provided free choice
- Where there are several animals in a pen, should be enough waterers or a large enough watering source to decrease competition

Feed

- Adequate amounts should be available to the animals, based on daily feeding schedule
- Kept in a safe and secure area to maintain cleanliness
- Record on a calendar all changes in feed



Facilities, Barns, Pens, Lots, Cages

- Review facilities, barns, pens and cages for objects protruding from fences, gates, and walls that could cause cuts, bruises, or skin lesions
- Look for broken boards, slats, and other flooring that could contribute to lameness or other injuries

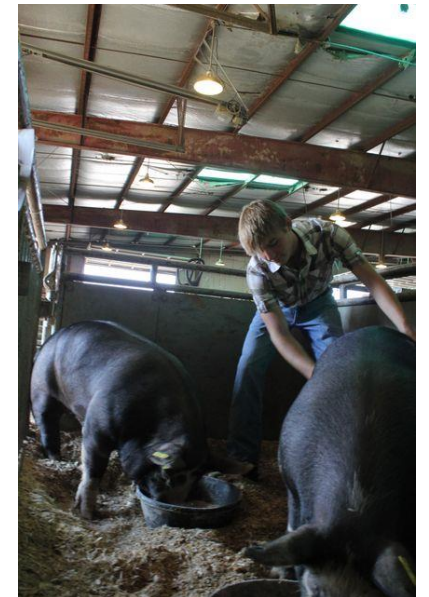


Alleyways, Loading Chutes

- Remove or repair:
 - Sharp, protruding, or otherwise injurious items
 - Broken or missing cleats
- Inspect moving parts such as cables, pulleys and hinges regularly and maintain as necessary
- Alleyways, ramps, chutes should be kept free of potential distractions

Animal Observation

- Animals should have enough space to move around and lay freely
- Evaluate environment to ensure temperature and air quality are correct for specific production phase
- Observe animals:
 - For signs of sickness or injury
 - Sleeping, eating, and drinking



Site Assessments

- Useful resource when developing and implementing a corrective action plan
- Discuss results of site assessments to develop and implement an action plan for problem areas
- File documentation of assessments and corrective actions for future review and comparison

Develop and Implement an Action Plan

- Develop and implement a corrective action plan after conducting a site assessment
- Documents actions that have been or will be taken to correct the issue(s) identified



Develop and Implement an Action Plan

- Demonstrates the exhibitor's commitment to continuous improvement to the industry, industry partners, customers, and general public
- Involve veterinarian, 4-H and FFA advisors to provide ideas or advice on how an issue may be corrected or who to connect with for help